Mechanism of verbal morphology among heritage Arabic children in the US

Maaly Al Omary

University of Wisconsin-Milwaukee
malomary@uwm.edu

This research paper investigates the morphological features of verbal agreement along with the influence of MSA verbs and expressions on the oral production of child speakers of Arabic as a heritage language, specifically children of Jordanian and Syrian origin who are living in the United States. The imperfective verb, in spoken Arabic, is used to describe habitual and repeated aspects as well as to indicate the progressive aspect. Also, the participle-verb construction is used to indicate the progressive aspect. The verb following participles namely (ʔaaʕid and ʔam) invariably takes bare imperfective morphology. Also, this verb takes the same number and of the preceding participle. This current study focuses on investigating the morphological pattern of these participles (if they surface in the production of Arabic heritage speakers) and the morphological features of verbs in progressive aspect. Given the fact that the Jordanian and Syrian heritage speakers in this study have acquired the relevant variety of Arabic in early childhood along with Modern Standard Arabic, this study investigates whether participants switch between their dialects and MSA expressions and verbs. 10 children were tested in one oral production task in this study. The findings showed that while both Jordanian and Syrian heritage speakers of Arabic showed mastery in producing the morphological pattern of participles in progressive aspect structure, they showed differential acquisition of verb inflection in progressive aspect. Moreover, the result showed that both groups showed code switching and transfer from Modern Standard Arabic verbs and expressions. Lastly, these findings could have important implications with regards to pedagogical methods used for heritage learners of Standard Arabic.

Keywords: Progressive aspect, participles, code switching, MSA, Arabic heritage speakers, verbal morphology

1. Introduction

The term heritage speakers introduced in Canada in the mid-1970s (Cummins 2005) has been gaining ground in the United States since the 1990s. Since then, there have been different definitions of this term. One
definition is that heritage speakers do not constitute a rigid group, their usual linguistic path involves extensive exposure to the heritage language in early childhood, typically at home, but this exposure gradually lessens later in childhood and adolescence (Montrul 2008). Fishman’s (2006) definition also includes domestic languages, not just immigrant languages. Representative minorities are Spanish, East Asian, Russian, and Arabic heritage speakers. In general, the definition of heritage speakers are child and adult members of a linguistic minority community who grew up exposed to their home language and the majority language. Despite these different definitions, heritage speakers share a common characteristic in that they have achieved differential command of the family language, different from the native speaker level of their parents and of peers raised in their home countries. Also, heritage speakers are a special case of child bilingualism because the home language is a minority language, and not all heritage language children have access to education in their heritage language (Montrul 2010).

Rothman’s (2009) definition of an HL is different in its purposeful avoidance of the term incomplete acquisition:

A language qualifies as a heritage language if it is a language spoken at home or otherwise readily available to young children, and crucially this language is not a dominant language of the larger (national) society […] the heritage language is acquired on the basis of an interaction with naturalistic input and whatever in-born linguistic mechanisms are at play in any instance of child language acquisition.

Differently [from monolingual acquisition], there is the possibility that quantitative and qualitative differences in heritage language input, influence of the societal majority language and differences in literacy and formal education can result in what on the surface seems to be arrested development of the heritage language or attrition in adult bilingual knowledge. (Rothman 2009, p.155)

This definition differs from others according to whom the heritage language is a minority language that is acquired naturalistically but whose first language “did not develop fully at age appropriate levels” (Benmamoun et al 2013:133) (Valdés 2000) or “often does not reach native-like attainment during adulthood” (Benmamoun et al 2013).
In addition to that, Rothman’s definition does not implicate anything regarding the potential acquisition outcomes. Accordingly, a HS is a native bilingual speaker of a minority language spoken at home, and also a native speaker or a child L2 learner of the majority language of the society in which she/he lives and becomes educated (Kupisch & Rothman 2018).

Under such definition, the position of incomplete acquisition as a term to describe differences between monolingual controls and heritage speaker bilinguals can be misleading, if not unintentionally insensitive. While the typical end state grammars of heritage speakers (HSs) are different from appropriately matched monolinguals, different and incomplete acquisition in this domain are not potential synonyms (Kupisch & Rothman 2018).

In recent definitions, Rothman & Treffers-Daller (2014) define a native language as the “one that is acquired from naturalistic exposure, in early childhood and in an authentic social context/speech community” (p. 97). Also, heritage speakers are bilingual speakers and native speakers of the majority language if the acquisition process takes place before or at age 4-6 years (Rothman & Treffers-Daller 2014). Moreover, heritage speakers are native speakers of their heritage language as they acquire the language in an implicit way and in a family setting at a young age and they acquire their language in a natural setting (Aalberse & Muysken 2013). Therefore, according to recent definitions, in this paper we will use the terms nonsource like or different form to indicate the lexical forms produced by the heritage speakers that differ from their family language input.

Previous research on proficiency in the heritage language showed that proficiency varies significantly. For instance, some Spanish heritage speakers studied by Montrul (2006) were found with very advanced or similar proficiency to monolingually raised speakers in the two languages. Also, proficiency in the home language, which is the weaker language for most heritage speakers, can range from simple receptive skills to intermediate and advanced oral and written skills. Accordingly, Proficiency depends on many factors such as the language itself, the community, and a host of other sociolinguistic circumstances (Montrul 2010).

Additionally, many areas that are affected in heritage language grammar have been identified in several linguistic, psycholinguistic, sociolinguistic, and pedagogical studies. Areas identified are morphosyntax which includes case, verbal and nominal agreement, tense, aspect, and mood (Polinsky 2008 a), the pronominal reference (Polinsky 2007), article semantics, word order (O’Grady 1997), relative clauses, and conjunctions (Montrul 2010).

Thus, these researchers conclude that the fact that heritage speakers display differences in their linguistic knowledge does not mean they have acquired
irregular grammar. Studies of heritage language systems show that in many respects heritage language grammars show a process of simplification attested in language contact situations, the emergence of new linguistic varieties, and diachronic language change (Montrul 2010). Also, Montrul (2016) states that “learning the grammar of a language is a process with a beginning followed by a period of development that spans several years, the study of language acquisition is concerned with describing the typical courses of development of different aspects of vocabulary and grammar”(p.1). Therefore, the heritage language grammars are rule governed like other languages and grammars.

For instance, inflectional morphology is one of the most affected area in heritage language grammars. In this area, the nominal domain in many languages mark number, gender, and case, thus; heritage speakers of languages with overt gender, number, and case marking produce a significant number of non-source like forms as compared to native speakers that are monolingually raised or even their own parents. For example, Russian has a three-way gender system (masculine, feminine, neuter), and Spanish has a two-way system (masculine, feminine). While monolingual Russian and Spanish-speaking children control gender marking by age 4 or earlier with almost 100% accuracy (except for most irregular, less frequent, and marked forms), Polinsky (2008a) and Montrul (2006) have independently shown that heritage speakers display very high error rates with gender marking (ranging from 5% to 25%).

Another example of an affected area in inflectional morphology is the agreement in noun phrases that has also been studied in Arabic as a heritage language. Arabic is a language with a very complex system of gender and plural morphology. For instance, there are different endings for masculine and feminine plural nouns and adjectives. For example, the feminine human ending -aat is the most frequent ending (mudarrisatun “female teacher”, mudarres-att “female teachers”) and the masculine human ending is -uun/-iin (mudarris “male teacher,” mudarris-uun “male teachers”) (Montrul, 2010). However, there are numerous exceptions to these patterns. For instance, Arabic has what is called the broken plural in which there is a very productive process involving a change of root rather than simply suffixation. Examples of broken plurals are kitaab “book”, -kutub “books”, and film “film”, -ʔaflaam “films”. Benmamoun, Albirini, Saadah & Montrul (2008) investigated productive control of plural agreement patterns in heritage speakers of Egyptian Arabic, heritage speakers of Palestinian-Jordanian Arabic, and monolingually speakers raised of the two dialects in spontaneous oral production and elicited oral production tasks. The results showed that monolingually raised speakers performed at 99–100%
A heritage accuracy; but the heritage speakers produced up to 30% error rates with some words. While heritage speakers retained knowledge of broken plurals and Semitic roots in general, they tended to use different patterns. In addition to that, they also made the same types of errors attested in monolingual Arabic speaking children during the stage of early language development: They overextended the plural feminine suffix -aat to masculine contexts.

Researchers such as Polinsky (2007), have found additional examples of non-source like forms in heritage speakers. Polinsky’s study highlighted differences in case usage, in which heritage speakers replaced dative with accusative, and accusative with nominative in many constructions with subjects, direct objects, and indirect objects. Thus, while monolingual speakers of Russian use the six-case markings, heritage speakers tend to use only two: nominative and accusative. Similarly, Song, M., O'Grady, W., Cho, S., & Lee, M. (1997) reported another example of case omission patterns in Korean by finding that while 5 to 8-year-old monolingual Korean children were 86% accurate at comprehending OVS sentences in Korean with nominative and accusative case markers, the 5- to 8-year-old Korean heritage speakers performed at less than 34% accuracy.

Another example of case omission was found amongst Spanish heritage speakers. Montrul and Bowles (2009) showed that heritage Spanish speakers omit the dative preposition “a” with dative experiencer subjects with gusto type verbs (‘Juan le gusta la musica’ instead of ‘A Juan le gusta la musica’ “Juan likes music”). Additionally, they omit the same preposition when it appears with animate direct objects (‘Juan vio María’ instead of ‘Juan vio a María’ “Juan saw María”).

In the verbal domain, there are similar morphological difference in the grammars of heritage language speakers, especially with subject-verb agreement and with tense paradigms. For example, while heritage speakers of Spanish and Russian seem to control regular forms of the present and past tenses, they have been found to have non-source like usage of aspecltal distinctions between perfective and imperfective forms (Montrul 2002, Polinsky 2007).

Alshammari (2015) investigated Arabic heritage speakers’ knowledge of gender and number agreement and concord morphology in two syntactic contexts: subject-verb agreement and subject adjective agreement. The participants in this study were from Arab origin: Iraq, Syria, Palestine, and Lebanon. They were born in the United States. The researcher hypothesized that the dominant language, English, may affect the usage of gender and number agreement in the two syntactic contexts in Arabic. The findings
showed that human-plural feminine and human-plural masculine were the most difficult categories encountered by the heritage speakers regarding subject-verb and subject-adjective agreements. Most of the participants over generalized human-singular masculine to human-plural masculine in the subject-verb agreement. Also, the participants made a negative transfer from singular masculine verb to singular or plural masculine verbs as a result of the lack of gender in the dominant language. In terms of subject-adjective agreement, most of heritage speakers had difficulty with the subjects of human-plural masculine and human-plural feminine.

1.1. Standard Arabic and Colloquial Varieties of Arabic

The Arabic language is characterized by the existence of two forms, Modern Standard Arabic (MSA) and colloquial varieties of Arabic. MSA is unified across the Arabic countries as the official language, with variations in the choices of lexical items, expressions, and borrowings. MSA usage is limited to formal, semi-formal, and literary contexts. It is used in formal education, formal business transactions and documents, administration, Qur’anic schools, and in media. In contrast, the colloquial varies across and within countries as it is the spoken language which has been learned in the home and used in conversations and other informal communicative exchanges. Moreover, it does not have a standardized script, and is therefore mainly used in the home, in casual daily interactions, and in spontaneous unscripted speech (Albirini 2014).

Accordingly, most heritage speakers of Arabic are exposed to their parents’ variety of colloquial Arabic in the home; Some may have been exposed to MSA at some point in their education in Arabic programs, Islamic/Arabic schools in their community or through other communication channels. Generally, Colloquial Arabic is neither written nor used in major media channels as much as Standard Arabic, thus; heritage speakers have limited access to the variety with which they are familiar, and therefore have little chance to practice it outside their homes. Therefore, their experiences with their dialectal languages may vary significantly depending on factors such as language exposure, home, community, and school. Although, the colloquial or spoken Arabic varies across and within countries, the different dialects may share a large number of cognates, but their phonological, morphological, and syntactic systems may display significant variation (Albirini 2014).

In Arabic, the two varieties, MSA and Colloquial Arabic, vary in form, distribution, and function. MSA and Colloquial Arabic also differ in terms of structure and acquisition Colloquial Arabic generally has a different
system of sentential negation, smaller agreement paradigms, and different
aspectual and modality markers.

Similarly, some of the vocabulary and sounds (e.g., /q/, /u/, and /ð/) found
in MSA do not exist in some Arabic dialects and vice versa. In terms of
acquisition, colloquial Arabic is acquired by Arab children from birth,
whereas MSA is usually acquired in formal instructional settings. Also,
while both (standard and colloquial) varieties may be used in the same
speech context particularly among educated speakers, colloquial Arabic is
acquired as a L1, whereas standard Arabic is acquired as L2, although this
term may not accurately reflect the reality of the situation, given that
exposure to the two varieties is quite prevalent in the Arabic-speaking
world (Albirini 2014). This situation reflects the background of the parents
and community of the heritage Arabic speakers. Heritage speakers are
exposed to their parents’ variety of colloquial Arabic at home (Albirini
2014).

2. The Current Study

This study endeavors to examine the verbal morphology in progressive
aspect with the influence of MSA acquisition in the oral production with
heritage speakers of Arabic. Arabic verbal morphology is one of the most
studied areas in previous studies. In addition, to the best of my knowledge,
there are not research papers investigating the effects of MSA acquisition
with Arabic heritage speakers. In the present study, to investigate the
possible impact of MSA verbs and expressions on heritage speakers’ oral
production, an oral production task was created with a brief interview with
each participant to examine verbal inflection. During this interview, the
participants were instructed in English and Arabic to use their dialects while
responding to the questions. However, no specific instructions were given
regarding avoiding the use of English or Standard Arabic. The interviewer
was a native speaker of Arabic and an Arabic tutor.

Many studies investigated the verbal morphology in the oral production of
Arabic heritage speakers. Albirini & Benhamoun (2012) reported that
Egyptian and Palestinian heritage speakers display better command of
subject-verb agreement compared to noun-adjective agreement or concord.
Their findings showed accuracy rate on subject-verb agreement in
production stood at 82.78% as compared to a 63.92% accuracy rate for
adjective-noun agreement (concord). Their finding was intriguing even
though the verbal agreement paradigms are significantly larger than
adjectival paradigms and hence possibly more costly to acquire.
Most previous research on Arabic heritage speakers has focused on sociolinguistic and pedagogical issues. For example, Shiri (2010) explored the presence, use, and teaching of Arabic as well as the demographics of Arabic speakers in the United States. Ibrahim & Allam (2006) focused mainly on Arabic heritage speakers’ motivations to learn Arabic, their attitudes toward learning this language, the materials they studied, and the attitudes of their parents toward learning Arabic. Their findings showed that heritage students wanted to learn Arabic to increase their knowledge of the Arab region and its peoples. Moreover, they were positive about learning Arabic, were happy with the instructional materials, and were urged by their parents to learn and maintain it.

Albirini (2014) focused on three questions: (1) whether heritage speakers who enroll in college level elementary MSA classes have an advantage over their L2 counterparts, (2) Whether any potential advantage that heritage speakers may bring in to the classroom carries on to a later stage of their MSA learning, and (3) the role of positive or negative transfer from the colloquial variety in the acquisition of MSA in a formal setting. The results showed that whereas elementary heritage speakers entered the MSA classroom with an advantage over their L2 counterparts in the area under study, the advanced heritage speakers exhibited patterns that were comparable to those of the L2 learners. Moreover, the results showed that the advanced heritage speakers displayed positive and negative transfer effects from colloquial Arabic in the acquisition of MSA in a formal setting. Accordingly, previous research conducted on Arabic investigated the verbal morphology and the transfer effect of colloquial Arabic separately, while this current study strives to examine the verbal morphology under the effect of MSA acquisition along with other expressions in the oral production of Arabic heritage speakers.

For instance, this study investigates the verbal morphology in progressive aspect in spoken Arabic. This aspect could be indicated by imperfective verb that describe habitual and repeated aspects as well as by participle-verb construction. Also, the verb following participle takes bare imperfective morphology and the same number and of the preceding participle. Moreover, participles in spoken Arabic agree both in number and gender with the nouns that they modify. For example, in ʔal-walad ʔaadSid b-jedrus the participle ʔaadSid (undertaking-3SM) agree with the noun ʔal-walad (the boy) in number and gender.

Given the fact that the Jordanian and Syrian heritage speakers in this study have acquired the relevant variety of Arabic in early childhood along with MSA and the dominant language (English), this study investigates whether participants switch between their dialect and MSA verbs and expressions,
over generalize the grammar rules of MSA to their spoken language, or perhaps transfer from English. Thus, the main purpose of this research paper is to address the following research questions:

1. Have the HS internalized the notion of progressive aspect structure with the usage of the participle ʔaaʕid and the particle ʕam in their native varieties?
2. What morphological patterns of participles have emerged in progressive aspect?
3. Will the HS produce the source-like form of imperfective verbs in progressive aspect?
4. Will both groups of heritage speakers code switch between MSA and their dialect verbs and expressions?

2.1. Hypothesis

In order to investigate these questions, we offer three hypotheses in this study:

1. Heritage speakers of Arabic will produce the participle-verb construction with the usage of the participle ʔaaʕid and the particle ʕam in progressive aspect structure.
2. HS will vary in their production of agreement pertaining to participles and the imperfective verb.
3. HS of Arabic will code-mix their dialects with some MSA expressions and verbs.

2.2. Participants

Participants of this study involved two groups for a total of ten heritage speakers of Jordanian and Syrian Arabic, each group consisting of five participants. The participants in the two groups were elementary and middle school students, with ages that ranged from 10 to 14 (mean age = 12.3). All participants were studying in the same Arabic language program at the time of this study. They started learning Standard Arabic at the age of four years old. Only one Syrian heritage speaker started learning MSA at the age of eight. Some of them have been studying MSA for nine years and minimum of six years with an average of 7.9 years. All Jordanian heritage children speakers were born in the United States to Jordanian parents. The parents are professionals working as physicians and professors. Some of them arrived in the USA upwards of 10 to 15 years ago in order to pursue graduate degrees after finishing their college education in their home countries (Jordan and Syria).
Parents reported the linguistic background of their children as well as theirs by means of a survey and brief interview. The questions on the survey revolved around their children language use at home and the period they have been acquiring MSA along with Arabic colloquial acquisitions, and they ensure that the participants are qualified for the study. One of the Jordanian participants considers her nationality to be Jordanian American and two of them consider themselves Jordanian, the other two Palestinian-Jordanian. The Jordanian heritage group contained one male and four females. In a similar manner, the Syrian heritage speakers were also born in the United States to Syrian parents. They considered their children’s nationality to be Syrian American. The Syrian heritage group had two males and three females. Two Jordanian heritage participants identified both Arabic and English as their L1 and three of them identified the Arabic as their L1. In contrast, two Syrian heritage speakers identified Arabic as their L1, compared to three who identified both Arabic and English as their L1.

According to the parental reports, two of the Jordanian heritage speakers still speak Arabic at home along with English and three of them speak only Arabic at home. All Jordanian Heritage group report that they visit Jordan every year to two years, they also watch Arabic TV programs at home. Moreover, they reported that they have some activities that involve Arabic such as card games and reading Arabic stories. On the other hand, three Syrian heritage speakers report that they speak Arabic along with English at home and two of them speak Arabic only. The Syrian speakers have not visited their country for more than five to nine years. Four Syrian parents reported that they have their parents living with them or around them for at least 5 years. Moreover, they visit their families and relatives every week, and they communicate with them in Arabic only as they do not know English. One Syrian heritage speaker has traveled to live in Saudi Arabia for 3 years. Also, the parents of this speaker reported that their child was studying in an American school where Arabic was taught in one class (led by a native Arabic speaker) while all other subjects were in English with native speaking English teachers.

Of the 10 heritage participants, nine of these speakers could read and write Standard Arabic. They could understand the main ideas from a passage or in a story at Elementary school level in Arabic countries in Jordan and Syria. In other words, they may be using significant amount of contextual and pragmatic knowledge to supplement grammatical deficiencies such as MSA parts of speech, preposition, questions words, word order, adverbs, and verb tense in three forms (present, past, future). Table 1 shows the speakers’ and parents’ background in the two groups.
The study involved an oral production and a survey completed in a single session, as well as a semi-structured interview carried out independently. The purpose of the task was to elicit naturalistic data that would reflect their performance on progressive structures. They were tested individually in a quiet room for 15 minutes. The procedure started with a brief interview with each participant. During this interview, the participants were instructed in Arabic and in English to use their dialects while responding to the questions (see Appendix A). However, no specific instructions were given regarding avoiding the use of English or Standard Arabic.

The investigator, who is a teacher for some of these participants, asked them to think for five minutes before giving their response, then to tell her when they were ready to answer. They were shown three pictures on a computer
followed by questions for each. The first picture was of a boy studying. The participant was asked to describe in Arabic what the boy in the picture was doing. The second picture was of a girl studying and the researcher asked the same question and followed the same procedure. The third picture was of a boy and a girl studying together. They were asked to describe what they are doing now in that picture and the researcher followed the same procedure (see Appendix B). The researcher captured the participants' answers through an audio recording using Praat. While the interview was taking place, each participant's parent outside the interview room was completing a brief survey followed by clarifications (see Appendix C). The questions on the survey revolved around their children language use at home and background.

3. Data Analysis

The recordings of participant responses were transcribed. Before coding the data, all the grammatical features which are the focus of the study were identified. The total number of words produced by both groups were calculated. The progressive structure components were identified as well as source-like and non-source-like verbs. The MSA expressions uttered by participants were collected and grouped into speech parts.

3.1. Results

The data obtained from the participants’ oral production is summarized in Table 2. As this paper is investigating the imperfective form, the source-like form and non-source like form verbs were collected. Also, the progressive participles as (ʔααʕid “undertaking”, ʕam “ongoing”) were addressed along with the number of times they were used by the two groups. Moreover, this study investigates the usage of MSA verbs and expressions in their oral production since they have been studying the MSA at early age with their L1, therefore; MSA lexical verbs and expressions were collected and grouped into speech parts.

As shown in table 2, the speakers showed some knowledge of the structure and the pattern of progressive aspect in Jordanian and Syrian dialects. The findings show that four of five Syrian heritage speakers produced ʕam with 12% of their total words with only one exception. In a similar manner, four of five Jordanian heritage speakers produced ʕam and ʔaaʕid with 17% of their total words.
The following examples in (1) and (2) show that the progressive forms were produced by Jordanian and Syrian heritage speakers respectively:

(1) ʔal-walad-u ʔaaʕid je-drus
    ART-boy-NOM undertaking.3SM IPFV~study.3SM
    ‘The boy is studying’

(2) El-bent ʕam te-ktub be-l-ktab
    ART-girl ongoing IPFV~write.3SF in-ART-book
    ‘The girl is writing in the book’

In addition to that, this study findings show that subject-participial agreement represented a stable area for Jordanian heritage speakers in heritage language acquisition as shown in the following examples:

(3) ʔal-walad-u ʔaaʕid je-drus
    ART-boy-NOM undertaking.3SM IPFV~study.3SM
    ‘The boy is studying’
As shown in (3), the participial ʔaaʕid “undertaking” is in the default form (masculine singular) because the noun ʔal-waladu “the boy” is masculine and singular. In a similar manner, the participles in (4) and (5) carry singular feminine and plural masculine markers, respectively, because the nouns they refer to are singular feminine and plural masculine, respectively.

In contrast, the data shows an interesting feature of the use of non-source-like verb inflection in participial-verb structure by Jordanian heritage speakers. In previous examples, the verb inflection after participles takes different verb inflection. As it appears in (3), (4) and (5) the verb after participles is missing the indicative prefix b- of the simple imperfect form in Jordanian Arabic. The same pattern of non-source like verb form was found in almost all cases in the data. There were 14 non-source-like forms out of 17 total verbs produced by other Jordanian heritage speakers as in the following examples in (6):

(6)  Haða ʔal-walad ʕam * je-drus
This ART-boy ongoing IPFV~study.3SM
‘This boy is studying’

The source-like verb pattern with the indicative prefix b- of imperfective form was produced less by these speakers as shown in (7), (8) and (9):

(7)  el-benet ta-drus wa b-te-ktub be-l-ketab
ART-girl study.3SF and IND-write.3SF in-ART-book
‘The girl studies and writes in the book’

(8)  ʔal-awlad ʕam b-edrus-u
ART-children ongoing IND-IPFV~study.PL
‘The children are studying’

(9)  ʔal-walad ʕam b-udrus
ART-boy ongoing IND-IPFV~study.3SM
‘The boy is studying’
In previous examples, the speaker in (7) switches between the two patterns of verb in the same utterance with conjunction particle wa. This example shows that the speaker seems to know the indicative prefix b- for imperfective verb, however; the speaker did not produce it with the first verb in the same utterance. The examples in (8) and (9) show the source-like form of imperfective verbs produced by another speaker.

In similar manner, the indicative prefix b- from the imperfective verb was not found in the oral production of the Syrian group. However, this form of the particle Sam followed by a verb with or without the indicative prefix b- exists in Syrian Arabic. That being said, in Damascus Sam- + -b- is most common in first person singular(Sam-bakol ‘I’m eating’), more common than (Samaakol), otherwise the forms without b are predominant: Sam-namkol ‘we’re eating’, Sam-yaaklu ‘they are eating’ (Cowell, 1964).

Moreover, Cowell (1964) explained that the reason the prefix b- is not used after Sam-is that the form Sam- is resulted from the consistent assimilation of n in Sam- to the following b: Sam+ byakol: Sambyakol, then with b elided: Sam-yakol. This would also imply that Sam-is unrelated in origin to the other forms Samma-, and Sammaal.

The main purpose of this research paper was to investigate the morphological pattern of verb inflection in participles-verb construction in progressive aspect with the usage of participle qaʕid and the particle Sam in Jordanian and Syrian dialects. Thus, the above findings show that imperfective aspect after participles represents an unstable area in Jordanian and Syrian heritage language acquisition in which the indicative prefix b- for the imperfective verb was not found in their oral production. In contrast, the participle qaʕid and the progressive particle Sam were identified to describe the progressive. The participle qaʕid agreed in gender and number produced by the heritage speakers. Thus, the data partially supported the first hypothesis. Both groups of speakers produced the participle qaʕid and the particle Sam in progressive aspect and produced non-source like form of imperfective verb after participles, but they showed source like form agreement that pertaining to participles.

Another interesting finding in this study is the MSA lexical expressions produced by both groups. Comparing the total number of words produced by both groups to total number of MSA items produced, there is a difference between groups. While the Jordanian heritage speakers produced 17 MSA expressions, the Syrian group produced only 4 MSA expressions. The Jordanian heritage speakers used the MSA definite article ʔal with glottal stop /ʔ/ in their oral production instead of the definite article el in their spoken Arabic more than their counterparts, the Syrian heritage speakers. The Arabic definite article, corresponding to “the” in English, is composed
of the letters Āalif + lām. It is not an independent word but is always prefixed to the noun or adjective it is defining. There is only this one form of the definite article in Arabic, irrespective of the gender or number of the word being defined. In the following examples in (10) shows the use of the MSA definite article:

(10)  

a. ʔal-walad ʕam b-edrus  
    ART-boy ongoing IND-IPFV~study.3SM  
    ‘The boy is studying’

b. ʔal-bent ʕam tu-ktub  
    ART-girl ongoing IPFV~write.3SF  
    ‘The girl is writing’

c. ʔal-wlad ʕam b-edrus-u  
    ART-children ongoing IND-IPFV~study.PL  
    ‘The children are studying’

In addition to that, the results showed that MSA demonstrative Haða was used by both groups instead of the dialect pronoun had for singular and for plural as it shown in examples in (2). The demonstrative pronouns in Standard Arabic are used in the same way as English demonstratives. However, Arabic has many more demonstratives than English due to the masculine and feminine differentiation, and due to the dual case. For instance, it is very important in Modern Standard Arabic to make sure that the demonstrative pronoun must agree with the noun it refers to in number, gender, and case.

(11)  

a. Haða ʔal-wald ʕam je-drus  
    This.SM ART-boy ongoing IPFV~study.3SM  
    ‘This boy is studying’

b. Hay el-bent ta-drus  
    This.SF ART-girl IPFV~study.3SF  
    ‘This girl is studying’

c. Haða el-walad wa el-bent je-drus-u  
    This.SM ART-boy and ART-girl IPFV~study.PL  
    ‘This boy and girl are studying’

In both Jordanian and Syrian dialects, the demonstrative pronoun had indicates the singular masculine noun and the demonstrative pronoun hay indicates the singular feminine noun, while hadol indicates the plural noun. In the examples in (11), there is alternation between MSA and Jordanian and Syrian demonstrative pronouns. In (11a) the speaker produced the MSA
pronoun *Haḍa* to point for singular masculine noun *ʔal-wald* instead of *Had*, but in the second sentence (11b) the speaker shifted and alternated to the spoken dialect pronoun *hay* that agreed with the singular feminine noun *el-bent*. In the third sentence in (11c), the speaker again produced the MSA singular masculine pronoun *Haḍa* produced in non-standard way with the plural form indicated by the conjunction of two nouns (*el-walad wa el-bent*).

There was one notable feature of case marker of Modern Standard Arabic found in the data: the nominative case maker produced by Jordanian heritage speakers. Accordingly, this phenomenon may be relevant to the production of MSA vocabulary instead of the spoken dialect. In some cases, the Jordanian heritage speakers produced the nouns in subject position with the nominative case marker *-u* which is the standard form for nominative case in Modern Standard Arabic as illustrated in the following examples in (12):

(12)  
\[ \text{a. } \textit{ʔal-walad-u } \textit{ʔaaʕid je-drus} \]  
ART-boy-NOM undertaking.3SM IPFV~study.3SM  
‘The boy is studying’

\[ \text{b. } \textit{ʔal-bent-u } \textit{ʔaaʕdeh te-drus} \]  
ART-girl-NOM undertaking.3SF IPFV~study.3SF  
‘The girl is studying’

The speakers in (12) produced the subject *ʔal-walad-u* and *ʔal-bent-u* with nominative case marker *-u* instead of the Jordanian Arabic subjects (*el-walad* and *el-bent*) respectively. These findings support and confirm the second hypothesis of this study. The two groups of speakers code-mixed and switched between their dialects and MSA expressions and verbs in their oral production.

These examples show that subject-verb agreement represents differential acquisition in heritage language. Moreover, it is important to point out that in almost all cases in which the participle is used, the sentences produced by the participants have source-like subject-participle agreement in the progressive aspect. This may suggest that the non-source agreement is not entirely due to the lack of knowledge of agreement morphology on the part of the participants but to the effect of MSA simple imperfect verb without the indicative suffix *-b*. Moreover, this may suggest that the heritage speakers might have their own verb pattern to indicate the imperfective aspect.

4. Discussion
This study has investigated the verbal morphology of Arabic heritage speakers’ speech in the United States, with a focus on Jordanian and Syrian child heritage speakers. In general, the heritage speakers examined were very competent in Arabic. They displayed general mastery of important aspects of Arabic, such as the progressive aspect structure with participles and progressive particles. Inflections on imperfect verbs after participles were produced in a non-source like form by Jordanian speakers. Nonetheless, their performance on the narrative task revealed clear and occasionally subtle grammatical differences. Many of the differences could be attributed to the effect of the acquisition of MSA grammar rules at an early age (most having started at the age of four). The average number of years that the Arabic heritage speakers in this study have been learning MSA is 7.9 years. The Jordanian and Syrian heritage speakers tend to overextend the MSA verbs and vocabulary. They may overgeneralize MSA grammar rules to verbs and nouns and other vocabulary over the spoken verbs and vocabulary of their dialects.

With regards to the tendency of these two groups of heritage speakers to produce and alternate between the MSA and their dialects, it appears this could be due to the influence of the research site, the “Arabic Program Center” where the study was conducted, or due to the researcher’s position as an Arabic teacher in that program. The fact that in some instances the heritage Arabic speakers preferred the MSA pattern strongly favors the hypothesis that they were code switching between their dialects and the grammar rules of MSA. However, these heritage speakers show knowledge of recognizing the MSA and dialect expressions and could produce source-like forms.

The speakers of Jordanian Arabic grammaticalize the active participle ʔaaʕid from the stative verb ʔaʕad “sit” namely gaales in MSA and follow the same the pattern faa Серг ‘ʔaaʕid’. In Jordanian Arabic the progressive particles ʕam and ʔaaʕid’ followed by imperfective verb is produced by native speakers to indicate progressive aspect. These participles should agree both in number and gender with the nouns that they modify; therefore, the form of the participle depends on the gender and number of the noun it modifies. Accordingly, in this study the Jordanian heritage speakers produced ʔaaʕid six times in their oral production that agreed in number and gender with the noun that they modify, when they responded to three questions about what the characters in the pictures are doing, also they produced ʕam for four times as source-like form.

In Syrian Arabic, the active participle form of the verb ʕamal “work” in Syrian Arabic namely ʕammal is produced to mark progressive/continuous. In Syrian Arabic, the time reference in the perfect is rendered more specific
by the particle of actuality ʕam- as in ‘ʕam -yektob’ “he is writing”, and without this particle the imperfect of (byektob) is used to predicate generalities

(‘he writes’), potentialities (‘he would write’) and assumed future events (‘he will write’) (Cowell, 1964). Thus. In this study four of five Syrian speakers produced ʕam as source-like followed by imperfective verb.

This study data showed that the subject-participial agreement form seems simpler for heritage speakers in this study in that there is only one pattern that takes regular nominal agreement morphology. This has been confirmed in a previous study by Albirini, Benmamoun & Šaadah (2011). They found that the participle form seems simpler because there is only one paradigm that takes regular agreement morphology and that Arabic heritage speakers treat the participial form as a default.

On the other hand, Jordanian heritage speakers tend to have difficulty with verb inflection. The data show that the heritage speakers produced the non-source like form of the imperfect verb, usually after the active participle, which forms the progressive structure in Jordanian Arabic. The results obtained from the narratives are striking in contexts in which an imperfect verb suffixed with the indicative b- in the initial position would be expected, the Jordanian and Syrian heritage speakers instead used the verb without the imperfect indicative prefix. In Syrian Arabic, it is common to omit the indicative prefix b-, it said to result from the consistent assimilation of n in ʕan- to the following b: ʕan+ byakol: ʕam-byakol, then with b- elided: ʕam-yakol (Cowell, 1964). For Jordanian speakers, this process is not applicable after the participle ʔadaʕid as there is no feeding environment for the assimilation process to occur unless they use the particle ʕam instead.

Another possible explanation is that Jordanian speakers decided to use the imperfect verb form in MSA. In standard Arabic, verbs in imperfect form are prefixed with j- for third person masculine singular, and t- for third person feminine singular, and y- for masculine plural. However, the imperfect form of the verb with the indicative b- is found in the data, but frequently and even after the continuous particle ʕam where the assimilation process could occur. Thus, these finding may support again that these speakers have been code-mixing with MSA grammar rules which influence their dialect.

Previous studies point to agreement morphology in terms of gender and number as highly susceptible to language attrition or loss among heritage speakers (Montrul 2002). In Arabic, verbs following participles invariably take bare imperfective morphology. At the same time, they assume the same number of the preceding participles. Accordingly, in a previous study by
Albirini, Benmamoun & Saadah (2011), the pattern of verbal agreement errors was found in the narratives of Palestinian heritage speakers in the use of non-source like verb inflection in participial-verb constructions, where the singular masculine present participle gaaʕed “undertaking” is followed by a verb that is marked as past and plural instead of imperfective form as in the following example:

(13) *gaaʕed dawwar-u ala el-DifDif
    Undertaking searched.3P. on ART-frog
    ‘They are in the process of searching for the frog.’

Their data showed that noun-participial agreement represents a stable area in heritage language acquisition, however; the verb inflection in participial-verb constructions did not take the imperfective form and did not agree with preceding participles in number and tense (Albirini, Benmamoun & Saadah, 2011: 286-287).

While this paper studying the heritage speakers' production, the results showed one interesting feature of heritage Arabic speech of codeswitching in which the speakers use an English word with Arabic functional categories when they do not know the Arabic word or could not retrieve it. In that respect, the heritage speakers may use their heritage language as a mental lexicon (ML) in the sense of Myers-Scotton (1993) to embed the English word. Also, this would be relevant to how L2 learners of Arabic perform on codeswitching. The data showed that codeswitching phenomenon was not found at all in Jordanian heritage speakers’ oral production. On the other hand, in Syrian heritage speakers’ oral production, the data showed that codeswitching was found only once as one speaker produced desk. Moreover, the phenomenon of transfer from English was not attested in these heritage speakers’ speech. In one case, a Syrian heritage speaker produced the English progressive marker -ing to indicate the progressive aspect form as shown in (14):

(14) Walad wa bent *ju-drus-ing
    Boy and girl study-PROG.3SM
    ‘The boy and the girl are studying’

The Syrian heritage speaker replaced the progressive prefix ʕam- before the imperative judursu with English -ing and suffixed it to the end of the verb judrus-ing to indicate the continuous of the verb. This non-source like form of verb indicates that this speaker is transferring the grammar rule of progressive aspect form English, the dominant language, to Arabic dialect.

Although the heritage speakers show knowledge of verbal morphology in the progressive aspect, their code switching, and transfer of MSA
expressions and verbs could be evidence of the influence of early input of MSA on the acquisition of their dialects. In a study by Albirini, Benmamoun & Saadah (2011), it was stated that any Modern Standard Arabic expressions in heritage speech tend to be formulaic, which evidences lack mastery of MSA and that because Standard Arabic is learned through formal instruction and literacy which is different from the colloquial variety spoken at home and within the community. In contrast, this current study findings of code switching and transfer of MSA verbs and expressions could be indication of differential acquisition of their dialects.

Finally, these findings have important implications on the pedagogical methods for heritage learners of Modern Standard Arabic. Their heritage language varieties are different from the Standard Arabic that is taught in heritage Arabic classes. These differences between the MSA and the varieties of Arabic should be taken into account in the teaching process and in the instructional material. Arabic instructors and tutors may need to add speaking and listening classes to their lesson plans to create an environment for the heritage speakers to practice their dialects.

5. Conclusion

The main goal of this paper was to investigate the morphological pattern of verbs in progressive aspect in oral production of Arabic heritage speakers, Jordanian and Syrian children, under the influence of MSA acquisition. While progressive aspect in indicated by imperfective verb and participle-imperfective verb construction, this paper investigated the morphological pattern of the participles (ʔaaʕid and ʕam), and the verbal morphology in progressive aspect. Results showed that both groups of HS participants show accuracy with the agreement pertaining the participles in the progressive aspect. Moreover, the results showed that while both heritage speakers groups showed a mastery in the production of progressive aspect structure in their dialects, both groups showed differential acquisition of verbal morphology in this aspect. The second goal of this study was to examine the influence of MSA verbs and expressions on HS oral production, and if these two groups of speakers would code switch between their dialects and MSA. The results showed that their code switching and transfer from Standard Arabic expressions and verbs could be evidence of differential acquisition of their Arabic dialects. In future research, the influence of MSA input need to be extensively studied with Arabic heritage speakers. Particularly, as the current study examines precisely the verbal morphology under the effect of MSA acquisition on heritage speakers’ dialects, a possible future direction is to examine the verbal and nominal
morphology of these groups in different settings and by another researcher, to examine the effects of MSA on their dialects and to determine whether MSA is being produced because of the sociolinguistic contact, and whether it would vary in another setting. Furthermore, more studies are needed to examine the factors that Arabic heritage speakers rely on to switch and transfer from MSA. These studies are important to provide a wider understanding of how early acquisition of MSA could affect the colloquial Arabic.

REFERENCES


APPENDICES

Appendix A: “Task Questions”

1. “What does the boy look like he is doing now?” Please answer using your spoken Arabic
2. “What does the girl look like she is doing now?” please answer using your spoken Arabic.
3. “What do the boy and the girl are look like doing now?” please answer using your spoken Arabic.
Appendix B: “Task Pictures”

1. First picture of a boy studying

![First picture of a boy studying](image1)

2. Second picture of a girl studying

![Second picture of a girl studying](image2)

3. Third Picture of a boy and a girl studying together.

![Third picture of a boy and a girl studying together](image3)

Appendix C: “Study Survey”

**Instructions**
Answer the questions as they relate to you. Check the box that best describes your experience or fill in your own answer.

Child first name:
Child age:
Nationality:
Gender:

1. What is the spoken language at home?
   - [ ] English
   - [ ] Arabic
   - [ ] Other
   
   ![Other language](image4)

2. How often do you visit your country?
   - [ ] Every year
   - [ ] Every two years
   - [ ] Every 2-3 years
   - [ ] Other
   
   ![Other years](image5)

3. How long has your child been learning Standard Arabic?

   ![Other years](image6)
4. How many activities at home does your child take part in that involve Arabic Language?

- 1-2
- 3-4
- 5-6
- Other

5. How often does your child speak Arabic at home?

- Always
- Very often
- Sometimes
- Rarely
- Never